

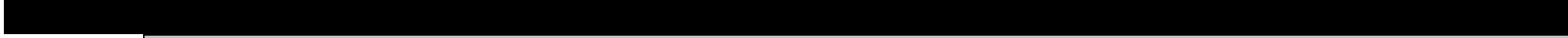
<b>2016 Scope and Sequence:</b>	
<b>School For Excellence</b>	<b>Course: LIVING ENVIRONMENT</b> <b>Name(s): Gifty Asamani, Kirk John</b>
<b>Essential Questions:</b>	Essential questions should be open ended, not a single path of inquiry, and have multiple possible answers. Examples: "How do the arts shape, as well as reflect, a culture?" Or "Is there ever a "just" war?"
<b>Focus/Unit:</b>	What will the unit be focusing on and what are its primary objectives?
<b>Content</b>	What topics, themes will be covered in the unit? What information will students be learning?
<b>Common Core Standards</b>	What specific Common Core standards will the unit be addressing?
<b>Ongoing Formative Assessments:</b>	How will the teacher assess student understandings throughout the course of the unit? What types of daily, weekly assessments will teachers use?
<b>Summative Assessment:</b>	Please do not simply write "tests" or "exams". What types of projects will students be engaged in to demonstrate learning? (Describe them.) What will students create that shows this learning?
<b>Skills Necessary For Performance Tasks</b>	What specific skills will students need to acquire/ learn in order to perform well in the class and on the assessments? Make sure these are specific – what sub skills do students need to learn in order to master the general skills?
<b>What specific literacy strategies will be used?</b>	Please do not simply write "7 Habits" and "Annotation". Instead explain <i>how</i> the 7 Habits and annotation will be used and what other specific (department specific) literacy strategies will students be engaged in?
<b>What examples of art will be used?</b>	What specific art pieces and art forms will be used to enhance the lessons in the unit?
<b>What types of technology will be incorporated?</b>	What specific types of technology will teachers use to enhance the lessons in the unit? (Ex. Using Discovery, Flocabulary) What specific technological tools will teachers use to present material? (video cameras, lap tops)

September	
Essential Questions:	<p>HOW IS SCIENTIFIC KNOWLEDGE GENERATED AND VALIDATED?            WHAT IS SCIENCE? HOW DO WE KNOW WHAT TO BELIEVE IN SCIENCE?            WHAT SHOULD EVERYONE KNOW ABOUT BIOLOGY?            HOW DO SCIENTISTS INVESTIGATE A PROBLEM AND REPORT THE RESULTS? HOW DO WE FIND OUT ABOUT OUR ENVIRONMENT?            HOW DO SCIENTISTS FIND OUT ABOUT OBJECTS, LIVING THINGS AND PHENOMENA? HOW CAN WE ORGANIZE MATERIALS AND EVENTS TO HELP US MAKE SENSE OF WHAT WE OBSERVE?            HOW DO WE FIND OUT ABOUT OUR WORLD?            WHAT IS A "FAIR TEST?" HOW CAN WE IDENTIFY PROBLEMS TO SOLVE IN SCIENCE?            WHY IS IT IMPORTANT TO MAKE AND FOLLOW A WRITTEN PLAN OR PROCEDURE WHEN DOING AN INVESTIGATION? HOW DO WE COMMUNICATE THE RESULTS OF OUR INVESTIGATIONS TO OTHERS?            HOW DOES TECHNOLOGY LIKE THE MICROSCOPE AID BIOLOGISTS LEARNING ABOUT THE NATURAL WORLD?</p>
	<p>SCIENTIFIC INQUIRY</p>
Content	<p>(1) THE ROLE OF SCIENTIFIC INQUIRY IN STUDYING BIOLOGY. (2) UNDERSTANDING THE SCIENTIFIC METHOD</p>
Common Core Standards/Skills:	<p>RI.9-10.3: Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.            RI.9-10.7: Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address. RI.9-10.8: Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.            W.9-10.2.a: Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g. headings), graphics (e.g. figures, tables), and multimedia when useful to aiding comprehension            W.9-10.7: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation</p> <p>New York State Standards            S1.K1.1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing and creative process.            S1.K1.2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.</p>

	S1.KI.3 The observations made while testing proposed explanations, when analyzed using conventional and invented methods, provide new insights into natural phenomena.
<b>Ongoing Formative Assessments:</b>	Response to "Do Now," Class participation, Completion of laboratory activities, Exit Slips, Homework
<b>Summative Assessment:</b>	STUDENTS WILL PERFORM HANDS ON LABORATORY ACTIVITIES UTILIZING THE STEPS OF THE SCIENTIFIC METHOD - "MAKING CONNECTIONS," "HOW ARE DATA COLLECTED AND GRAPHED?" STUDENTS WILL APPLY THE STEPS OF THE SCIENTIFIC METHOD TO SCIENCE RELATED DISCUSSION ARTICLES AND TOPICS. STUDENTS WILL LEARN AND ILLUSTRATE DIFFERENT TYPE OF GRAPHS LIKE A HISTOGRAM, BAR GRAPH, LINE GRAPH AND VENN DIAGRAM. STUDENTS WILL LEARN THAT EVERY GRAPH TELLS A STORY AND WILL LEARN TO INTERPRET DIFFERENT TYPES OF GRAPHS. TAKE QUIZZES AND CLASS EXAMS. Students will draw and interpret graphs.
<b>Skills Necessary For Performance Tasks:</b>	DATA COLLECTION, DATA ORGANIZATION INTO TABLES AND GRAPHS AND DATA INTERPRETATION
<b>What specific literacy strategies will be used?</b>	STUDENTS WILL APPLY THE 7 HABBITS - OF - A - GOOD – READER AND THE WRITING PROCESS TO WRITE THEIR LABORATORY REPORTS FOLLOWING THE STEPS OF THE SCIENTIFIC METHOD.

<b>What examples of art will be used?</b>	STUDENTS WILL EITHER TAKE PICTURES OF THEIR PLANTS. STUDENTS WILL DOWNLOAD PICTURES THAT DEPICT THEIR LABORATORY ACTIVITIES TO INCLUDE AS PART OF THEIR REPORTS.
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<b>What types of technology will be incorporated?</b>	THE USE OF SMART BOARD, LAPTOPS FOR RESEARCH AND EXPERT REFERENCE, IPAD FOR SCIENCE APPs FOR VISUAL AIDES. DISCOVERY EDUCATION, WIZARD TEST – MAKER, ONLINE SIMULATION ACTIVITIES, FLOCABULARY
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	<b>October</b>
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<b>Essential Questions:</b>	HOW DID LIFE BEGIN? WHAT DO ALL LIVINGS HAVE IN COMMON? OF WHAT VALUE IT IS TO LEARN WHAT LIVING THINGS ARE MADE OF? WHAT ARE CELLS AND HOW DO THEY CARRY OUT LIFE FUNCTIONS? WHAT DOES IT MEAN TO BE LIVING? WHY ARE THERE AMBIGUITIES ABOUT WHAT “LIFE” IS?
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<b>Focus/Unit:</b>	THE ORGIN OF LIFE
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<p><b>Content</b></p>	<p>Formation of first cells from molecules, The Nature of Prokaryotes/ Eukaryotes, Compare and contrast the plant cell with the animal cell</p>
<p><b>Common Core Standards/Skills:</b></p>	<p>New York State Common Core Standards  RI.9=10: Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9–10 texts and topics.  W.9-10.2.d: Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers  W.9-10.2.c: Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</p> <p>New York State Standards  S1.KI.3 The observations made while testing proposed explanations, when analyzed using conventional and invented methods, provide new insights into natural phenomena.  S4.KI.1: Living things are both similar to and different from each other and from nonliving things.</p>
<p><b>Ongoing Formative Assessments:</b></p>	<p>Response to “Do Now,” Class participation, Completion of laboratory activities, Exit Slips, Homework</p>
<p><b>Summative Assessment:</b></p>	<p>UNDERSTANDING THE CELL THEORY; CONTRIBUTION OF THE SCIENTISTS INVOLVE IN THE BEGINNING CELL BIOLOGY; THE DIFFERENCE BETWEEN A SIMPLE CELL AND A COMPLEX ONE. STUDENTS WILL TAKE QUIZZES AND CLASS TESTS. PERFORM LABORATORY ACTIVITIES. MOCK REGENTS.  Students are required to take The New York State Living Environment Regents Examinations.</p>

<b>Skills Necessary For Performance Tasks:</b>	<p>Critical analysis of data/graph and interpretation, compare and contrast, analogical skills, inductive and deductive reasoning, writing a complete laboratory report</p>
<b>What specific literacy strategies will be used?</b>	<p>APPLICATION OF THE STRATEGIES OF THE WRITING REVOLUTION, APPLICATION OF THE WRITER'S PROCESS AND THE SEVEN HABITS OF A GOOD READER.</p>
<b>What examples of art will be used?</b>	<p>Use illustrations and graphing to compare and contrast the living objects with non-living things. Use of video streaming and interactive videos for practical tasks.</p>
<b>What types of technology will be incorporated?</b>	<p>The use of Smart Board, Laptops for research and expert reference, IPAD for biological Apps to increase visual Aides. Students will draw and interpret graphs, will illustrate a simple cell versus a complex cell, Flocabulary, online simulation activities.</p>
<b>November</b>	
<b>Essential Questions:</b>	<p>HOW ARE A PERSON AND A PLANT DIFFERENT FROM A STONE?          WOULD YOU EXPECT THE CELLS OF YOUR SKIN TO LOOK THE SAME AS THE CELLS OF YOUR BONES?          HOW ARE CELS ORGANIZED INTO GROUPS?          HOW ARE ORGANISMS GROUPED AND CLASSIFIED?          HOW DO ORGANISMS GET THE ENERGY THEY NEED AND HOW DO THEY USE IT?          WHAT DO LIVING THINGS NEED TO SURVIVE AND HOW DO THE PARTS OF LIVING THINGS HELP THEM TO SURVIVE?          HOW DO PROCESSES THAT HAPPEN AT THE CELLULAR LEVEL INFLUENCE THE STRUCTURE, FUNCTIONS AND BEHAVIORS AT LEVEL OF TISSUES, ORGANS, ORGAN SYSTEMS OR THE ENTIRE ORGANISM?          HOW WILL A BASIC KNOWLEDGE OF CHEMISTRY HELP YOU UNDERSTAND AND EXPLAIN BIOLOGICAL PROCESSES?</p>

<b>Focus/Unit:</b>	<p>ORGANIZATION AND PATTERNS IN LIFE.</p>
<b>Content</b>	<p>CELL STRUCTURE; CELL PHYSIOLOGY; CELL CHEMISTRY; PHOTOSYNTHESIS; RESPIRATION; DIFFUSION AND OSMOSIS; MITOSIS</p>
<b>Common Core Standards/Skills:</b>	<p>New York State Common Core Standards  RI.9-10.2: Determine the central ideas or conclusions of a text; trace the text’s explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.  RI.9-10.9: Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.  W.9-10.2.b: Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic  W.9-10.2.e: Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing</p> <p>New York State Standards  S4.K1.1: Living things are both similar to and different from each other and from nonliving things.  S4.K1.5: Organisms maintain a dynamic equilibrium that sustains life.</p>
<b>Ongoing Formative Assessments:</b>	<p>Response to “Do Now,” Class participation, Completion of laboratory activities, Exit Slips, Homework</p>

<b>Summative Assessment:</b>	<p>STUDENTS WILL LEARN ABOUT THE PLANT AND ANIMAL CELLS; KNOW THE STRUCTURE AND FUNCTION OF EACH ORGANELLE IN BOTH CELL TYPES; TAKE QUIZZES AND EXAMINATIONS. STUDENTS WILL CONSTRUCT A COLLAGE BASED ON THESE CELLS ON A DISPLAY BOARD AND ALSO GIVE AN ORAL PRESENTATION OF THEIR COLLAGES. MOCK REGENTS</p>
<b>Skills Necessary For Performance Tasks:</b>	<p>COMPARE AND CONTRAST, DRAWING ANALOGIES BETWEEN TWO VERY DIFFERENT OBJECTS, USING SCIENCE CONTENT TO FORMULATE A POEM OR AN ESSAY, WRINALWORKING COLLABORATIVELY WITH OTHERS TO COMPLETE A TASK, PRESENTATION TECHNIQUES, FOLLOWING TUNING PROTOCOL TO OFFER FEEDBACK TO OTHERS, ACCEPTING CONSTRUCTIVE CRITICISM WITHOUT BEING DEFENSIVE, LISTENING SKILLS</p>
<b>What specific literacy strategies will be used?</b>	<p>Students will draw and interpret graphs, will illustrate the plant cell versus the animal cell; will make a collage based on the plant cell and the animal cell and drawing analogies between the function of the cell structures with "real world" objects. Student will either write an essay or a poem depicting their understanding of the cell, its structure and function.</p>
<b>What examples of art will be used?</b>	<p>Students will draw and interpret graphs, will illustrate prokaryotes versus eukaryotes and the plant cell versus the animal cell.</p>
<b>What types of technology will be incorporated?</b>	<p>The use of Smart Board, Laptops for research and expert reference, IPAD for biological Apps to increase visual Aides, online simulation activities, Flocabulary</p>



**December**

- How does studying cycles help us to understand natural processes?
- How do living things adapt to the environment?
- What do living things need to survive?
- How do the parts of living things help them to survive?
- How do we know if an ecosystem is "stable" or "healthy"?
- What is matter and how does it behave?
- What do we know about how earth features are formed?
- What is our (niche) role in the universe?
- How can we safeguard our environment?
- What are the components of an ecosystem and how do they interact with one another?
- How does energy flow within an ecosystem?
- Why is balance within an ecosystem essential for its sustainability?

ECOLOGY

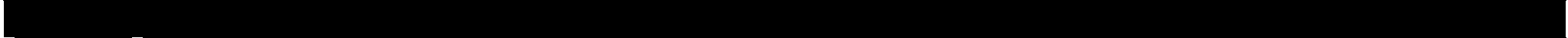
(1) RELATIONSHIPS (2) INTERACTIONS

<p><b>Common Core Standards/Skills:</b></p>	<p>New York State Common Core Standards  RI.9-10.5: Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).  W. 9-10.9: Draw evidence from informational texts to support analysis, reflection, and research</p> <p>New York State Standards  S4.K1.1: Living things are both similar to and different from each other and from nonliving things.  S4.K1.6: Plants and animals depend on each other and their physical environment.</p>
<p><b>Ongoing Formative Assessments:</b></p>	<p>Response to "Do Now," Class participation, Completion of laboratory activities, Exit Slips, Homework</p>
<p><b>Summative Assessment:</b></p>	<p>STUDENTS WILL LEARN ABOUT THE PLANT AND ANIMAL CELLS; KNOW THE STRUCTURE AND FUNCTION OF EACH ORGANELLE IN BOTH CELL TYPES; TAKE QUIZZES AND EXAMINATIONS. STUDENTS WILL CONSTRUCT A COLLAGE BASED ON THESE CELLS ON A DISPLAY BOARD AND ALSO GIVE AN ORAL PRESENTATION OF THEIR COLLAGES. MOCK REGENTS</p>
<p><b>What specific literacy strategies will be used?</b></p>	<p>APPLICATION OF THE STRATEGIES OF THE WRITING REVOLUTION, APPLICATION OF THE WRITER'S PROCESS AND THE SEVEN HABITS OF A GOOD READER.</p>
<p><b>What examples of art will be used?</b></p>	<p>STUDENTS WILL APPLY THEIR UNDERSTANDING OF THE DIFFERENCE BETWEEN A FOOD CHAIN AND A FOOD WEB THROUGH ILLUSTRATIONS</p>

<b>What types of technology will be incorporated?</b>	<p>THE USE OF SMART BOARD, LAPTOPS FOR RESEARCH AND EXPERT REFERENCE, IPAD FOR SCIENCE APPs FOR VISUAL AIDES. DISCOVERY EDUCATION, WIZARD TEST – MAKER, FLOCABULARY</p>
<b>January</b>	
<b>Essential Questions:</b>	<p>HOW IS HOMEOSTASIS MAINTAINED IN OTHER ORGANISMS?  HOW DO THE PARTS OF LIVING THINGS HELP THEM TO SURVIVE?  HOW CAN OUR SENSES HELP US TO FIGURE OUT WHAT HAPPENS IN OUR ENVIRONMENT?  HOW DO LIVING THINGS ADAPT TO THEIR ENVIRONMENT?  WHAT DO LIVING THINGS USE TO SURVIVE? HOW CAN WE FIND OUT HOW LIVING THINGS REACT TO DIFFERENT STIMULI AND CONDITIONS?  HOW ARE THE INTERNAL SYSTEMS OF ORGANISMS STRUCTURED TO HELP AN ORGANISM SURVIVE? HOW DO ORGANS AND TISSUES INTERACT WITH ONE ANOTHER AND CARRY OUT LIFE FUNCTIONS?  HOW DO ORGAN SYSTEMS WORK AND RESPOND TO CHANGING DEMANDS OF AN ORGANISM?</p>
<b>Focus/Unit:</b>	<p>HOMEOSTASIS AND IMMUNITY</p>
<b>Content</b>	<p>(1) BODY SYSTEMS OVERVIEW (2) HOMEOSTASIS AND FEEDBACK SYSTEMS (3) IMMUNE RESPONSE</p>

<p><b>Common Core Standards</b></p>	<p>New York State Common Core Standards  RI.9-10.2: Determine the central ideas or conclusions of a text; trace the text’s explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.  RI.9-10.9: Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.  W.9-10.2.b: Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic  W.9-10.2.e: Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing</p> <p>New York State Standards  S4.K1.1: Living things are both similar to and different from each other and from nonliving things.  S4.K1.5: Organisms maintain a dynamic equilibrium that sustains life.</p>
<p><b>Ongoing Formative Assessments:</b></p>	<p>Response to “Do Now,” Class participation, Completion of laboratory activities, Exit Slips, Homework</p>
<p><b>Summative Assessment:</b></p>	<p>Students will be assessed through tests and quizzes as well as projects and labs related to the course material. STUDENTS ARE REQUIRED TO TAKE THE NEW YORK STATE LIVING ENVIRONMENT REGENTS.</p>
<p><b>Skills Necessary For Performance Tasks:</b></p>	<p>Critical analysis of data/graph and interpretation, compare and contrast, analogical skills, inductive and deductive reasoning, writing a complete laboratory report</p>
<p><b>What specific literacy strategies will be used?</b></p>	<p>APPLICATION OF THE STRATEGIES OF THE WRITING REVOLUTION, APPLICATION OF THE WRITER’S PROCESS AND THE SEVEN HABITS OF A GOOD READER.</p>

<b>What examples of art will be used?</b>	Use of video streaming and interactive videos for practical tasks.
<b>What types of technology will be incorporated?</b>	The use of Smart Board, Laptops for research and expert reference, IPAD for biological Apps to increase visual Aides, online simulation activities



**February**

<b>Essential Questions:</b>	HOW ARE TRAITS IN ORGANISMS PASSED FROM ONE GENERATION TO ANOTHER? HOW DOES STUDYING CYCLES HELP US TO UNDERSTAND NATURAL PROCESSES? WHAT IS THE EVIDENCE FOR THE BIOTIC ORIGIN OF LIFE? WHAT ARE THE STAGES OF THE CELL CYCLE? WHAT IS THE ROLE OF THE CELL CYCLE IN ORGANISMS? HOW DOES THE UNDERSTANDING AND MANIPULATION OF GENETICS, REPRODUCTION, DEVELOPMENT AND EVOLUTION AFFECT THE QUALITY OF HUMAN LIFE?
<b>Focus/Unit:</b>	REPRODUCTION AND DEVELOPMENT
<b>Content</b>	(1) MEIOSIS (2) REPRODUCTIVE SYSTEMS (3) FERTILIZATION (4) DEVELOPMENT (5) STEM CELLS

<p><b>Common Core Standards/Skills:</b></p>	<p>New York State Common Core Standards  RI.9-10.8: Assess the extent to which the reasoning and evidence in a text support the author’s claim or a recommendation for solving a scientific or technical problem.</p> <p>RI.9-10.9: Assess the extent to which the reasoning and evidence in a text support the author’s claim or a recommendation for solving a scientific or technical problem.  W.9-10.8: Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation</p> <p>New York State Standards  S4.KI.4: The continuity of life is sustained through reproduction and development.</p>
<p><b>Ongoing Formative Assessments:</b></p>	<p>Response to “Do Now,” Class participation, Completion of laboratory activities, Exit Slips, Homework</p>
<p><b>Summative Assessment:</b></p>	<p>STUDENTS ARE REQUIRED TO TAKE THE NEW YORK STATE LIVING ENVIRONMENT REGENTS.</p>
<p><b>Skills Necessary For Performance Tasks:</b></p>	<p>Critical analysis of data/graph and interpretation, compare and contrast, analogical skills, inductive and deductive reasoning, writing a complete laboratory report</p>
<p><b>What specific literacy strategies will be used?</b></p>	<p>APPLICATION OF THE STRATEGIES OF THE WRITING REVOLUTION, APPLICATION OF THE WRITER’S PROCESS AND THE SEVEN HABITS OF A GOOD READER.</p>

<p><b>What examples of art will be used?</b></p>	<p>Use of video streaming and interactive videos for practical tasks.</p>
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<p><b>What types of technology will be incorporated?</b></p>	<p>The use of Smart Board, Laptops for research and expert reference, IPAD for biological Apps to increase visual Aides, online simulation activities, FLOCABULARY</p>
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<p><b>March</b></p>	
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<p><b>Essential Questions:</b></p>	<p>HOW ARE TRAITS IN ORGANISMS PASSED FROM ONE GENERATION TO ANOTHER? HOW DOES GENOTYPE AFFECT PHENOTYPE? HOW IS A PARTICULAR HUMAN DISORDER RELATED TO GENOTYPE? HOW CAN SOCIETY ACCOMMODATE HUMAN DIFFERENCES BASED UPON BIOLOGICAL KNOWLEDGE? WHAT IS THE CHEMICAL BASIS OF LIFE? HOW DO GENES CODE FOR PROTEINS? WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF DIFFERENT REPRODUCTIVE STRATEGIES? HOW DO ORGANISMS CHANGE AS THEY GO THROUGH THEIR LIFE CYCLES? HOW ARE ORGANISMS OF THE SAME KIND DIFFERENT FROM EACH OTHER?</p>
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<p><b>Focus/Unit:</b></p>	<p>GENETICS AND BIOTECHNOLOGY</p>
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<p><b>Content</b></p>	<p>(1)MENDEL OVERVIEW (2) DNA/RNA (3) PROTEIN SYNTHESIS (4) DISEASE (5) MUTATIONS (6) BIOENGINEERING (7) BIOETHICS</p>
<p><b>Common Core Standards/Skills:</b></p>	<p>New York State Common Core Standards  RI.9-10.2: Determine the central ideas or conclusions of a text; trace the text’s explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.  RI.9-10.6: Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.  W.9-10.1.a: Introduce precise claims, distinguish the claims from alternate or opposing claims, and create an organization that establishes clear relationships among the claims, counterclaims, reasons, and evidence  W.9-10.1.d: Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing</p> <p>New York State Standards  S4.KI.2: Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring.</p>
<p><b>Ongoing Formative Assessments:</b></p>	<p>Response to “Do Now,” Class participation, Completion of laboratory activities, Exit Slips, Homework</p>
<p><b>Summative Assessment:</b></p>	<p>STUDENTS ARE REQUIRED TO TAKE THE NEW YORK STATE LIVING ENVIRONMENT REGENTS.</p>



<b>Skills Necessary For Performance Tasks:</b>	<p>Critical analysis of data/graph and interpretation, compare and contrast, analogical skills, inductive and deductive reasoning, writing a complete laboratory report</p>
<b>What specific literacy strategies will be used?</b>	<p>APPLICATION OF THE STRATEGIES OF THE WRITING REVOLUTION, APPLICATION OF THE WRITER'S PROCESS AND THE SEVEN HABITS OF A GOOD READER.</p>
<b>What examples of art will be used?</b>	<p>Use of video streaming and interactive videos for practical tasks.</p>
<b>What types of technology will be incorporated?</b>	<p>The use of Smart Board, Laptops for research and expert reference, IPAD for biological Apps to increase visual Aides, online simulation activities</p>
<p>April</p>	

<b>Essential Questions:</b>	<p>WHY DID THEODOSIUS DOBZHANSKY SAY THAT “NOTHING IN BIOLOGY MAKES SENSE, EXCEPT IN THE LIGHT OF EVOLUTION”?</p> <p>WHAT TYPES OF EVOLUTIONARY ADAPTATIONS FOUND IN DIFFERENT DIVISIONS OF LIFE HAVE INCREASED EFFICIENCY AND SURVIVAL OF ORGANISMS?</p> <p>HOW DOES STUDYING CYCLES HELP US TO UNDERSTAND NATURAL PROCESSES?</p> <p>HOW DO LIVING THINGS ADAPT TO THE ENVIRONMENT? HOW WAS THE EARTH FORMED?</p> <p>WHAT WAS THE FIRST LIVING ENTITY?</p>
<b>Focus/Unit:</b>	<p>EVOLUTION</p>
<b>Content</b>	<p>(1) NATURAL SELECTION (2) EVIDENCE</p>
<b>Common Core Standards/Skills:</b>	<p>New York State Common Core Standards</p> <p>RI.9-10.8: Assess the extent to which the reasoning and evidence in a text support the author’s claim or a recommendation for solving a scientific or technical problem.</p> <p>RI.9-10.1: Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>W.9-10.1.b: Develop claims and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claims and counterclaims in a discipline appropriate form and in a manner that anticipates the audience's knowledge level and concerns</p> <p>W.9-10.1.e: Provide a concluding statement or section that follows from and supports the argument presented.</p> <p>New York State Standards</p> <p>S4.K1.3: Individual organisms and species change over time.</p>
<b>Ongoing Formative Assessments:</b>	<p>Response to “Do Now,” Class participation, Completion of laboratory activities, Exit Slips, Homework</p>

<b>Summative Assessment:</b>	<p>Labs:</p> <ol style="list-style-type: none"> <li>1. Homologous Structures</li> <li>2. Beaks of Finches</li> <li>3. Peppered Moths</li> <li>4. Interpreting Fossil Finds</li> </ol> <p>Projects:</p> <ol style="list-style-type: none"> <li>1. Create-Your-Own-Organism</li> <li>2. Evolutionary Trees</li> </ol> <p>STUDENTS ARE REQUIRED TO TAKE THE NEW YORK STATE LIVING ENVIRONMENT REGENTS.</p>
<b>Skills Necessary For Performance Tasks</b>	<p>Critical analysis of data/graph and interpretation, compare and contrast, analogical skills, inductive and deductive reasoning, writing a complete laboratory report</p>
<b>What specific literacy strategies will be used?</b>	<p>APPLICATION OF THE STRATEGIES OF THE WRITING REVOLUTION, APPLICATION OF THE WRITER'S PROCESS AND THE SEVEN HABITS OF A GOOD READER.</p>
<b>What examples of art will be used?</b>	<p>Use of video streaming and interactive videos for practical tasks.</p>
<b>What types of technology will be incorporated?</b>	<p>The use of Smart Board, Laptops for research and expert reference, IPAD for biological Apps to increase visual Aides, online simulation activities</p>

May

**Essential Questions:**

TO WHAT EXTENT CAN PEOPLE PREDICT THE CONSEQUENCES FROM HUMAN ALTERATIONS TO THE PHYSICAL ENVIRONMENT?  
DOES HOW HUMANS PERCEIVE THE ENVIRONMENT AFFECT HOW THEY CHOOSE TO MODIFY IT?  
WHAT CAN BE LEARNED FROM HUMAN MODIFICATION TO THE ENVIRONMENT?  
WHAT TYPES OF LEGISLATURE ARE NEEDED TO PROTECT THE ECOSYSTEM?  
HOW DOES HUMAN DECISIONS ABOUT THE ENVIRONMENT AFFECT BIODIVERSITY?

**Focus/Unit:**

HUMAN INFLUENCE ON THE ENVIRONMENT

**Content**

(1) POSITIVE INFLUENCE (2) NEGATIVE INFLUENCE (3) DECISION MAKING (RISK/BENEFIT)

**Common Core Standards/Skills:**

New York State Common Core Standards  
RI.9-10.5: Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).  
RI.9-10.8 Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.  
W.9-10.1.c: Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claims and reasons, between reasons and evidence, and between claims and counterclaims  
W.9-10.6: Use technology, including the Internet, to produce, publish, and update individual or share writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically

	<p>New York State Standards  S4.KI.7: Human decisions and activities have had a profound impact on the physical and living environment.</p>
<p><b>Ongoing Formative Assessments:</b></p>	<p>Response to "Do Now," Class participation, Completion of laboratory activities, Exit Slips, Homework, POGIL handouts</p>
<p><b>Summative Assessment:</b></p>	<p>STUDENTS ARE REQUIRED TO TAKE THE NEW YORK STATE LIVING ENVIRONMENT REGENTS.</p>
<p><b>Skills Necessary For Performance Tasks</b></p>	<p>Critical analysis of data/graph and interpretation, compare and contrast, analogical skills, inductive and deductive reasoning, writing a complete laboratory report</p>
<p><b>What specific literacy strategies will be used?</b></p>	<p>APPLICATION OF THE STRATEGIES OF THE WRITING REVOLUTION, APPLICATION OF THE WRITER'S PROCESS AND THE SEVEN HABITS OF A GOOD READER.</p>
<p><b>What examples of art will be used?</b></p>	<p>Use of video streaming and interactive videos for practical tasks.</p>

<b>What types of technology will be incorporated?</b>	The use of Smart Board, Laptops for research and expert reference, IPAD for biological Apps to increase visual Aides, online simulation activities, FLOCABULARY